



# ANIMAL WELFARE INSTITUTE

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Re: Designation of Critical Habitat for the Southern Resident Killer Whale, Federal  
Register Notice June 15, 2006 (Volume 71, Number 115), Page 34571-34588

Dear Sirs:

The Animal Welfare Institute (AWI) appreciates the opportunity to comment on the above-mentioned proposal to designate critical habitat for the southern resident orcas.

We support the proposed designation of critical habitat for these orcas which are now listed as endangered. However, the proposal excludes critical items. We have made comments on the requested subjects:

***The Withdrawal of Noise as a Potential Primary Constituent Element (PCE) and the Exemption of 18 Military Facilities***

We are perplexed that noise or "sound" as it is termed in the notice, was withdrawn for the critical habitat designation when it was included as a factor during the listing process. We are also concerned that 18 military facilities lying within the proposed critical habitat area have been exempted from the designation.

The orcas subject to this proposed designation, like other marine mammals, use sound to navigate, find food, locate mates, avoid predators and communicate with one another. Flooding their world with intense sound interferes with these activities with serious consequences. The proposal notice acknowledges this with such statements as "Killer whales locate their prey through a combination of echolocation and passive listening" and "[v]ocal communication is particularly advanced in killer whales and is an essential element of the species' complex social structure."

It is a scientifically established fact that sound can impact marine mammals and that impacts can range from behavioral disturbance to injury and death. A combination of noise sources, including shipping, oil and gas exploration and production, dredging, oceanographic experiments, construction, and military activities, has resulted in ocean noise levels doubling every decade for the last several decades in some areas.<sup>1</sup> Over the last ten years, growing evidence shows that ocean noise can kill, injure and deafen a wide range of ocean species, from whales and other marine mammals to invertebrates and fish.<sup>2</sup> In particular, exposure to military active sonar has been repeatedly linked with a dismaying series of marine mammal strandings and mortalities.<sup>3</sup>

The very orcas subject to this proposed designation have, as your office knows, been impacted by military active sonar in recent years, including the USS Shoup incident in the Eastern Strait of Juan de Fuca and Haro Strait in 2003. In this incident when a single Navy vessel conducted a “swept channel exercise” using active sonar transmissions three marine mammal species - including members of J pod, orcas subject to this proposal - fled the area and engaged in other behavioral disruptions that the NMFS has characterized as “profound”.<sup>4</sup> In the NMFS report on the incident, Dr. Robin Baird, a scientist with extensive experience observing the southern resident orcas, is quoted, stating that, “the behavioral patterns exhibited by the killer whales was not typical for southern resident killer whales.”<sup>5</sup>

Yet, despite the acknowledged association between military active sonar use and marine mammal stranding incidents, NMFS is not only withdrawing noise from the designation criteria, but is also exempting all 18 military facilities which lie in the proposed critical habitat areas.

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<sup>1</sup> See Andrew, R. K., Howe, B. M. and Mercer, J. A. 2002. Ocean ambient sound: Comparing the 1960s with the 1990s for a receiver off the California coast. *Acoustic Research Letters Online* 3(2): 65-70; International Whaling Commission, 2004 Report of the Scientific Committee at Annex K, § 6.4.

<sup>2</sup> For reviews of research on behavioral and auditory impacts of undersea noise on marine mammals and other species, see, e.g., W.J. Richardson et al., Marine Mammals and Noise (1995); National Research Council, Ocean Noise and Marine Mammals (2003); P. Tyack, “Behavioral Impacts of Sound on Marine Mammals,” Presentation to the U.S. Marine Mammal Commission Advisory Committee on Acoustic Impacts on Marine Mammals (February 4, 2004); Whale and Dolphin Conservation Society, Oceans of Noise (2004); and M. Jasny, Sounding the Depths II: The Rising Toll of Sonar, Shipping, and Industrial Ocean Noise on Marine Life (2005).

<sup>3</sup> See, e.g., A. Fernández et al., “‘Gas and Fat Embolic Syndrome’ Involving a Mass Stranding of Beaked Whales (Family Ziphiidae) Exposed to Anthropogenic Sonar Signals,” 42 *Veterinary Pathology* 446 (2005); Vidal Martin et al., “Mass Strandings of Beaked Whales in the Canary Islands,” in Proceedings of the Workshop on Active Sonar and Cetaceans 33 (P.G.H. Evans & L.A. Miller eds., 2004); Jepson, P. D. et al., “Gas bubble lesions in stranded cetaceans,” *Nature* 425: 575-576 (2003); International Whaling Commission, 2004 Report of the Scientific Committee, Annex K at Tab. 1; Jasny, Sounding the Depths II at Tab. 1-3.

<sup>4</sup> National Marine Fisheries Service (NMFS) 2006. Comments on the Draft Overseas Environmental Impact Statement/ Environmental Impact Statement for the Department of the Navy’s Undersea Warfare Training Range. Submitted to the Navy on Jan. 30, 2006. 5 pp.

<sup>5</sup> National Marine Fisheries Service (NMFS). 2005. Assessment of acoustic exposures on marine mammals in conjunction with USS Shoup active sonar transmissions in the eastern Strait of Juan de Fuca and Haro Strait, Washington, 5 May 2003. Silver Spring: NMFS. 13 pp.

The reason given for the military facility exclusion is “because the national security benefits of exclusion outweigh the conservation benefits of designation for each of the 18 sites” and the current war is given as the rationale behind the need to ensure national security. This broad excuse is woefully inadequate. A thorough justification is necessary to explain why these particular 18 military facilities are so critical to ensure national security. The notice further states that the exclusion is “only a small percentage of the whales’ habitat” and “we conclude that the exclusion of these areas will not result in extinction of the Southern Resident killer whale DPS.” This is an unsubstantiated statement given the document also concedes a lack of knowledge about the whales’ habits and locations during late fall, winter and early spring – which equates to about half a whale’s lifetime. It is also short-sighted to be making decisions that will affect the extinction of a species - an irreversible prospect - based on a transient situation such as a war.

### ***Shallow Areas***

NMFS should consider including shallow areas with water levels less than 20 feet as part of the critical habitat designation because of the presence of a key orca prey species - salmon. These shallow waters are very important habitat for salmon and since wild salmon populations are declining, protection of salmon habitats is essential to the recovery of the Southern Resident orcas. Furthermore, orcas, the ocean’s top predator, are also the ocean’s most contaminated marine mammal due primarily to ingesting contaminated prey and the consequent bio-accumulation of heavy metals and other persistent chemicals. High levels of certain of these chemicals can significantly weaken the immune system, impede proper brain development and hinder reproduction, all of which are terribly detrimental for such an endangered population. In addition, lactating females pass these chemicals on to their calves which further exacerbates the problem. By designating shallow areas as critical habitat, restrictions may be imposed on the types and quantities of pollutants being discharged into these areas, which will over time reduce the contaminant load of the water, the prey and ultimately, the orcas.

In summary, AWI respectfully requests that you consider noise or “sound” in the critical habitat designation; that the entire known range of Southern Resident orcas be included, without exempted areas; and that the designation be extended to shallow waters of less than 20 feet deep.

Thank you for your consideration, and we look forward to your response to this letter.

Sincerely,

A handwritten signature in black ink, appearing to read "Cathy Liss". The signature is fluid and cursive, with a large, stylized "L" at the end.

Cathy Liss  
President